REMARKS

The Non-final Office Action, mailed March 20, 2008, considered claims 1–6, 8, 9, and 11–33. Claims 24–25 and 29–33 were rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter. Claims 1, 4–6, 8, 11, 12 and 24–28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cluster-Based Delta Compression of a Collection of Files, by Zan et al. (hereinafter "Zan"), in view of Draper, U.S. Patent No. 6,604,236 (filed Jun. 28, 1999) (hereinafter Draper), and in further view of Crudele, U.S. Patent Pub. No. 2002/0099726 (filed Jan. 23, 2002) (hereinafter Crudele). Claims 2, 29, 32 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, Draper and Crudele, in view of Forbes, U.S. Patent No. 6,381,742 (filed Jun. 29, 1998) (hereinafter Forbes). Claims 3 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, Draper and Crudele, in view of Henry, U.S. Patent No. 6,131,192 (filed Jun. 18, 1998) (hereinafter Henry). Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, in view of Data Structures & Algorithm Analysis in C++, by Mark Allen Weiss (hereinafter Weiss). Claims 13, 14, 15 and 21–23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, in view of Sliger et al., U.S. Patent No. 6,216,175 (filed Jun. 8, 1998) (hereinafter Sliger). Claims 16 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, in view of Sliger, and in further view of Forbes. Claims 18–20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, in view of Sliger, and in further view of Henry. Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Zan, in view of Henry, and in further view of Forbes.[1]

By this response, claims 1, 8, 13, and 17 are amended and claims 24–33 have been cancelled.[2] Claims 1–6, 8–9, and 11–23 remain pending.[3] Claims 1, 12, 13, and 23 are

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[1] Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

[2] The Applicants do not concede that the data structures of claims 24–33 are not properly patentable subject matter under 35 U.S.C. § 101 and reserve the right to pursue such subject matter at some future time as may be considered appropriate or desirable.

[3] The amendments and remarks presented herein are consistent with the information presented by telephone by patent attorney Colby Nuttall (reg. no. 58,146) and attorney Thomas Bonacci.

independent claims which remain at issue. Support for the amendments may be found within Specification ¶¶ 43–58 and 76–80.[4]

As reflected in the claims, the present invention is directed generally toward embodiments for the delta compression of data. Claim 1 recites, for instance, in combination with all the elements of the claim, a method for intra-package delta compression. The method includes receiving information corresponding to a plurality of source files. For each of the files, a list of prospective delta inputs is generated which includes an entry for each other file. An iterator creates a delta for each prospective delta on each file's list of prospective deltas. The files are processed into a base file based upon a minimal package size. Signatures are calculated for each of the files. A manifest file is generated by creating a linked list of the files. The manifest file contains instructions needed to perform an extraction. The instructions are particularly ordered and the ordering of the instructions corresponds to an ordering of the linked list. The manifest file also contains a delta section, a copy section, a verify section, and a delete section. The file name and signatures for each file to be verified is saved in the manifest file. The manifest file, base file, and delta are packaged in a self-contained package.

Claim 12 recites a computer program product embodiment of the method of claim 1.

Claim 13 recites, in combination with all the elements of the claim, a method for synthesizing a target file from a self-contained package. The method includes receiving a package comprising a manifest file, at least one base file and a plurality of deltas. The base file was synthesized based upon a minimal package size. The manifest file contains instructions needed to perform an extraction and the instructions are particularly ordered in the manifest file. The ordering of the instructions corresponding to an ordering of a linked list. The manifest file includes a delta section, a copy section, a verify section, and a delete section. A target file is synthesized by applying a delta included in the package to a base file included in the package according to instructions included in the manifest file.

Claim 23 recites a computer program product embodiment of the method of claim 13.

Zan (Ouyang), Draper, and Crudele were cited in a 35 U.S.C. § 103 rejection of the independent claims 1 and 12.[5] Zan discloses a cluster-based delta compression of a collection of

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[4] Note that the paragraph numbers are taken from the published application, U.S. Patent Pub. No. 2005/0022175 (Jan. 27, 2005). It should also be noted that the present invention and claims as recited take support from the entire Specification. As such, no particular part of the Specification should be considered separately from the entirety of the Specification.

files. Draper discloses a method for generating file updates for files stored on read-only media. Crudele discloses a method for distribution of file updates. Claim 1 is now amended (and is incorporated into claim 12) and the Applicants submit that the prior art fails to teach or suggest all the limitations of the claims as now recited.

In particular, the prior art fails to teach or suggest for each of [a] plurality of source files, generating a list of prospective delta inputs, the prospective delta inputs including an entry for each other unique source file in the plurality of source files. The prior art also fails to teach or suggest an iterator creating a delta for each prospective delta on each file's list of prospective delta inputs. The prior art also fails to teach or suggest processing the source files into a base file for a package based upon a minimal package size. The prior art also fails to teach or suggest calculating signatures for each of the plurality of source files. The prior art also fails to teach or suggest generating a manifest file by creating a linked list of the plurality of source files, the manifest file comprising instructions needed to perform an extraction, the instructions being particularly ordered in the manifest file and the ordering of the instructions corresponding to an ordering of the linked list, and the manifest file comprising a delta section, a copy section, a verify section, and a delete section. The prior art also fails to teach or suggest saving in the manifest file the file name and signatures for each source file to be verified. The prior art also fails to teach or suggest packaging the manifest file (as described above), base file and the delta into a self-contained package.

Because of at least the noted distinctions, the Applicants submit that the prior art fails to teach or suggest all the limitations of claims 1 and 12 as now recited. Accordingly, rejections of claims 1 and 12 under 35 U.S.C. § 103 in view of Zan, Draper, and Crudele would be improper and should be withdrawn. Correspondingly, the Applicants respectfully request favorable reconsideration of claims 1 and 12 and their respective dependent claims.

Zan (Ouyang), and Sliger were cited in rejections under 35 U.S.C. § 103 of independent claims 13 and 23.[6] Zan discloses a cluster-based delta compression of a collection of files. Sliger discloses a method of upgrading copies of a file after normalizing differences between copies created during original installations. Claim 13 is now amended (and is incorporated into

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[5] Office Communication p. 5 (paper no. 20080303, Mar. 20, 2008).
[6] Office Comm. p. 14.

claim 23) and the Applicants submit that the prior art fails to teach or suggest all the limitations of the claims as now recited.

In particular, the prior art fails to teach or suggest receiving a package comprising a manifest file, at least one base file and a plurality of deltas. The prior art also fails to teach or suggest the base file having been synthesized based upon a minimal package size. The prior art also fails to teach or suggest the manifest file comprising instructions needed to perform an extraction, the instructions being particularly ordered in the manifest file, the ordering of the instructions corresponding to an ordering of a linked list. The prior art also fails to teach or suggest the manifest file comprising a delta section, a copy section, a verify section, and a delete section. Further, the prior art also fails to teach or suggest synthesizing a target file by applying a delta included in the package to the at least one base file included in the package according to instructions included in the manifest file.
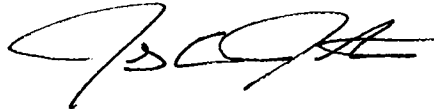
Because of at least the noted distinctions, the Applicants submit that the prior art fails to teach or suggest all the limitations of claims 13 and 23 as now recited. Accordingly, rejections of claims 13 and 23 under 35 U.S.C. § 103 in view of Zan and Sliger would be improper and should be withdrawn. Correspondingly, the Applicants respectfully request favorable reconsideration of claims 13 and 23 and their respective dependent claims.

In view of the foregoing, Applicants respectfully submit that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicants acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicants reserve the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at 801-533-9800.

Dated this 20th day of September, 2008.

Respectfully submitted,

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